Application No: 10554076   Version No: 1.0

Input Set:

Output Set:

Started: 2008-02-13 11:08:40.414
Finished: 2008-02-13 11:08:42.204
Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 790 ms
Total Warnings: 29
Total Errors: 0
No. of SeqIDs Defined: 30
Actual SeqID Count: 30

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)
W 213	Artificial or Unknown found in <213> in SEQ ID (21)

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        Input Set:


        Output Set:



          Started:   2008-02-13 11:08:40.414
         Finished:   2008-02-13 11:08:42.204
          Elapsed:   0 hr(s) 0 min(s) 1 sec(s) 790 ms
   Total Warnings:   29
     Total Errors:   0
No. of SeqIDs Defined:   30
 Actual SeqID Count:   30
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Error code   Error Description

          This error has occured more than 20 times, will not be displayed

<110> Leppla, Stephen H.

      Avallone, Jennifer

      Bugge, Thomas

      Liu, Shi-Hui

      Osorio, Manuel

      The Government of the United States of America

         as represented by The Secretary of the

         Department of Health and Human Services

<120> Activation of Recombinant Diphtheria Toxin Fusion

      Proteins by Specific Proteases Highly Expressed on the

      Surface of Tumor Cells

<130> 015280-478100US

<140> 10554076

<141> 2008-02-13

<150> US 60/468,577

<151> 2003-05-06

<150> WO PCT/US04/14306

<151> 2004-05-06

<160> 30

<170> PatentIn Ver. 2.1

<210> 1

<211> 1683

<212> DNA

<213> Corynebacterium diphtheriae

<220>

<223> wild type Diphtheria toxin (DT)

<220>

<221> sig_peptide

<222> (1)..(75)

<223> signal sequence

<400> 1

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aactttttctt cgtaccacgg gactaaacct ggttatgtag attccattca aaaaggtata 180
caaaagccaa aatctggtac acaaggaaat tatgacgatg attggaaagg gtttttatagt 240
accgacaata aatacgacgc tgcgggatac tctgtagata atgaaaaccc gctctctgga 300
aaagctggag gcgtggtcaa agtgacgtat ccaggactga cgaaggttct cgcactaaaa 360
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ctcagccttc ccttcgctga ggggagttct agcgttgaat atattaataa ctgggaacag 540
gcgaaagcgt taagcgtaga acttgagatt aattttgaaa cccgtggaaa acgtggccaa 600
gatgcgatgt atgagtatat ggctcaagcc tgtgcaggaa atcgtgtcag gcgatcagta 660
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gagcatcctg aattgtcaga acttaaaacc gttactggga ccaatcctgt attcgctggg 900
gctaactatg cggcgtgggc agtaaacgtt gcgcaagtta tcgatagcga aacagctgat 960
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<210> 2
<211> 1566
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:DTGM-L1
      DT-GMCSF fusion protein in which native furin
      recognition cleavage site replaced by matrix
      metalloproteinase (MMP) recognition cleavage site

<400> 2
atgggcgccg acgacgtcgt cgactcttct aaatcttttg tgatggaaaa cttttcttcg 60
taccacggga ctaaacctgg ttatgtagat tccattcaaa aaggtataca aaagccaaaa 120
tctggtacac aaggaaatta tgacgatgat tggaaagggt tttatagtac cgacaataaa 180
tacgacgctg cgggatactc tgtagataat gaaaacccgc tctctggaaa agctggaggc 240
gtggtcaaag tgacgtatcc aggactgacg aaggttctcg cactaaaagt ggataatgcc 300
gaaactatta agaaagagtt aggtttaagt ctcactgaac cgttgatgga gcaagtcgga 360
acggaagagt ttatcaaaag gttcggtgat ggtgcttcgc gtgtagtgct cagccttccc 420
ttcgctgagg ggagttctag cgttgaatat attaataact gggaacaggc gaaagcgtta 480
agcgtagaac ttgagattaa ttttgaaacc cgtggaaaac gtggccaaga tgcgatgtat 540
gagtatatgg ctcaagcctg tgcaggaaat ggaccattag gaatgttgag tcaaggtagc 600
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gagtctttga agagcatgg ccctatcaaa aataaaatga gcgaaagtcc caataaaaca 720
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cctgaattgt cagaacttaa aaccgttact gggaccaatc ctgtattcgc tggggctaac 840
tatgcggcgt gggcagtaaa cgttgcgcaa gttatcgata cgaaacagc tgataatttg 900
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gacggtgccg ttcaccacaa tacagaagag atagtggcac aatcaatagc tttatcgtct 1020
ttaatggttg ctcaagctat tccattggta ggagagctag ttgatattgg tttcgctgca 1080
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gagaacctga aggactttct gcttgtcatc ccctttgact gctgggagcc agtacaggaa 1560
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gcttga   1566

<210> 3
<211> 1566
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:DTGM-L2
      DT-GMCSF fusion protein in which native furin
      recognition cleavage site replaced by matrix
      metalloproteinase (MMP) recognition cleavage site

<400> 3
atgggcgccg acgacgtcgt cgactcttct aaatcttttg tgatggaaaa cttttcttcg 60
taccacggga ctaaacctgg ttatgtagat tccattcaaa aaggtataca aaagccaaaa 120
tctggtacac aaggaaatta tgacgatgat tggaaagggt tttatagtac cgacaataaa 180
tacgacgctg cgggatactc tgtagataat gaaaacccgc tctctggaaa agctggaggc 240
gtggtcaaag tgacgtatcc aggactgacg aaggttctcg cactaaaagt ggataatgcc 300
gaaactatta gaaagagtt aggtttaagt ctcactgaac cgttgatgga gcaagtcgga 360
acggaagagt ttatcaaaag gttcggtgat ggtgcttcgc gtgtagtgct cagccttccc 420
ttcgctgagg ggagttctag cgttgaatat attaataact gggaacaggc gaaagcgtta 480
agcgtagaac ttgagattaa ttttgaaacc cgtggaaaac gtggccaaga tgcgatgtat 540
gagtatatgg ctcaagcctg tgcaggaaat ggaccattag gattatgggc acaaggtagc 600
tcattgtcat gcataaatct tgattgggat gtcataaggg ataaaactaa gacaaagata 660
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gagaacctga aggactttct gcttgtcatc ccctttgact gctgggagcc agtacaggaa 1560
gcttga   1566

<210> 4
<211> 1560
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:DTGM-U2 DT-GMCSF fusion
      protein in which native furin recognition cleavage site
      replaced by urokinase-type plasminogen activator (uPA)
      recognition cleavage site

<400> 4
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taccacggga ctaaacctgg ttatgtagat tccattcaaa aaggtataca aaagccaaaa 120
tctggtacac aaggaaatta tgacgatgat tggaaagggt tttatagtac cgacaataaa 180
tacgacgctg cgggatactc tgtagataat gaaaacccgc tctctggaaa agctggaggc 240
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ccaacccccgg aaacttcctg tgcgacccag actatcacct ttgaaagttt caaagagaac 1500
ctgaaggact ttctgcttgt catccccttt gactgctggg agccagtaca ggaagcttga 1560


<210> 5
<211> 1560
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:DTGM-U3 DT-GMCSF fusion
     protein in which native furin recognition cleavage site
     replaced by urokinase-type plasminogen activator (uPA)
     recognition cleavage site

<400> 5
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taccacggga ctaaacctgg ttatgtagat tccattcaaa aaggtataca aaagccaaaa 120
tctggtacac aaggaaatta tgacgatgat tggaaagggt tttatagtac cgacaataaa 180
tacgacgctg cgggatactc tgtagataat gaaaacccgc tctctggaaa agctggaggc 240
gtggtcaaag tgacgtatcc aggactgacg aaggttctcg cactaaaagt ggataatgcc 300
gaaactatta agaaagagtt aggtttaagt ctcactgaac cgttgatgga gcaagtcgga 360
acggaagagt ttatcaaaag gttcggtgat ggtgcttcgc gtgtagtgct cagccttccc 420
ttcgctgagg ggagttctag cgttgaatat attaataact gggaacaggc gaaagcgtta 480
agcgtagaac ttgagattaa ttttgaaacc cgtggaaaac gtggccaaga tgcgatgtat 540
gagtatatgg ctcaagcctg tgcaggaaat ggaagtggaa aatcagcagg tagctcattg 600
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gcgtgggcag taaacgttgc gcaagttatc gatagcgaaa cagctgataa tttggaaaag 900
acaactgctg ctctttcgat acttcctggt atcggtagcg taatgggcat tgcagacggt 960
gccgttcacc acaatacaga agagatagtg gcacaatcaa tagctttatc gtctttaatg 1020
gttgctcaag ctattccatt ggtaggagag ctagttgata ttggtttcgc tgcatataat 1080
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tattctcccg ggcataaaac gaggcctcat atggcaccag cacgatcgcc aagcccaagc 1200
acgcagccct gggagcatgt gaatgccatc caggaggccc ggcgtctcct gaacctgagt 1260
agagacactg ctgctgagat gaatgaaaca gtagaagtca tctcagaaat gtttgacctc 1320
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<210> 6
<211> 1341
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:DTEGF-L1 DT-EGF
      fusion protein in which native furin recognition
      cleavage site replaced by matrix metalloproteinase
      (MMP) recognition cleavage site

<400> 6
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taccacggga ctaaacctgg ttatgtagat tccattcaaa aaggtataca aaagccaaaa 120
tctggtacac aaggaaatta tgacgatgat tggaaagggt tttatagtac cgacaataaa 180
tacgacgctg cgggatactc tgtagataat gaaaacccgc tctctggaaa agctggaggc 240
gtggtcaaag tgacgtatcc aggactgacg aaggttctcg cactaaaagt ggataatgcc 300
gaaactatta agaaagagtt aggtttaagt ctcactgaac cgttgatgga caagtcgga 360
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gagtatatgg ctcaagcctg tgcaggaaat ggaccattag gaatgttgag tcaaggtagc 600
tcattgtcat gcataaatct tgattgggat gtcataaggg ataaaactaa gacaaagata 660
gagtctttga aagagcatgg ccctatcaaa aataaaatga gcgaaagtcc caataaaaca 720
gtatctgagg aaaaagctaa acaataccta gaagaatttc atcaaacggc attagagcat 780
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tatgcggcgt gggcagtaaa cgttgcgcaa gttatcgata gcgaaacagc tgataatttg 900
gaaaagacaa ctgctgctct ttcgatactt cctggtatcg gtagcgtaat gggcattgca 960
gacggtgccg ttcaccacaa tacagaagag atagtggcac aatcaatagc tttatcgtct 1020
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tataattttg tagagagtat tatcaattta tttcaagtag ttcataattc gtataatcgt 1140
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ctgagtcacg atggttactg tctacatgac ggcgtctgta tgtatattga ggctctagac 1260
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<210> 7
<211> 1341
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:DTEGF-L2 DT-EGF
      fusion protein in which native furin recognition
      cleavage site replaced by matrix metalloproteinase
      (MMP) recognition cleavage site

<400> 7

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taccacggga ctaaacctgg ttatgtagat tccattcaaa aaggtataca aaagccaaaa 120
tctggtacac aaggaaatta tgacgatgat tggaaagggt tttatagtac cgacaataaa 180
tacgacgctg cgggatactc tgtagataat gaaaacccgc tctctggaaa agctggaggc 240
gtggtcaaag tgacgtatcc aggactgacg aaggttctcg cactaaaagt ggataatgcc 300
gaaactatta agaaagagtt aggtttaagt ctcactgaac cgttgatgga gcaagtcgga 360
acggaagagt ttatcaaaag gttcggtgat ggtgcttcgc gtgtagtgct cagccttccc 420
ttcgctgagg ggagttctag cgttgaatat attaataact gggaacaggc gaaagcgtta 480
agcgtagaac ttgagattaa ttttgaaacc cgtggaaaac gtggccaaga tgcgatgtat 540
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tcattgtcat gcataaatct tgattgggat gtcataaggg ataaaactaa gacaaagata 660
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gacggtgccg ttcaccacaa tacagaagag atagtggcac aatcaatagc tttatcgtct 1020
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ctgagtcacg atggttactg tctacatgac ggcgtctgta tgtatattga ggctctagac 1260
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aaatggtggg aacttagata a                                           1341
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<210> 8
<211> 1335
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:DTEGF-U2 DT-EGF fusion
      protein in which native furin recognition cleavage site
      replaced by urokinase-type plasminogen activator (uPA)
      recognition cleavage site

<400> 8

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taccacggga ctaaacctgg ttatgtagat tccattcaaa aaggtataca aaagccaaaa 120
tctggtacac aaggaaatta tgacgatgat tggaaagggt tttatagtac cgacaataaa 180
tacgacgctg cgggatactc tgtagataat gaaaacccgc tctctggaaa agctggaggc 240
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